

REMARKS

Claims 1, 4, 11-18 and 20 are pending. Claims 2, 3, 5-10 and 24-41 are canceled and claims 19 and 21-23 are withdrawn. Applicants request amendments to claims 1 and 4. The basis for the amendments can be found throughout the specification. No new matter has been added. In the Office Action Summary claims 19 and 21-23 are listed as withdrawn and in the Detailed Action at page 2, claims 19-23 are listed as withdrawn. Applicants respectfully remind the Office that claim 20 has not been withdrawn.

Rejection under 35 USC § 102(b) in view of Cook

Claims 1, 2, 4, 11-16 and 20 have been rejected under 35 U.S.C. §102(b) as being anticipated by Cook (US 5,521,302). The cited reference allegedly discloses a method of producing oligonucleotides with chirally pure phosphorus linkages using synthons that contain optionally substituted phosphate groups. The Office asserts that the structures of the disclosed synthons include the option that the phosphate is a phosphorothioate if one of R₄ or R₆ is S, or the phosphate is a methyl phosphorothioate if R₃ is S and R₄ is methyl, the heterocyclic base can be natural or synthetic, the nucleotides can be DNA nucleotides or can be RNA, possibly containing sugar substituents. The Office concludes that this structure meets the limitations of claims 11-14 and 16. The Office further points out that structure 17 disclosed by Cook, in particular, would upon removal from the CPG support, provide an oligonucleotide identical to those presently claimed and would therefore anticipate claims 1,2 and 15. Applicants respectfully disagree that Cook teaches all of the elements of claim 1 as currently presented. Claim 1 has been amended to require that the modified phosphate group is located at the 5'-end of the oligomeric compound and that the sulfur atom is located between the 5'-carbon and the phosphorus atom of the modified phosphate group. The structures disclosed by Cook do not meet the limitations of claim 1 as amended and as such, claim 1 and claims dependent thereon are not anticipated by Cook. Accordingly, the instant amendments obviate the rejection of claims 1, 2, 4, 11-16 and 20 under 35 U.S.C. §102 (b) and Applicants respectfully request that the rejection be withdrawn.

Rejection under 35 USC § 102(b) in view of Uhlmann

Claims 1-4, 11-18 and 20 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Uhlmann et al. (US 6,033,909). Applicants respectfully traverse this rejection because Uhlmann et al., do not teach or suggest the claimed invention. The Office Action, for example, is mistaken with respect to its characterization of the patent's disclosure. The structure of the oligonucleotide disclosed in the formula shown in claim 1 of Uhlmann et al. teach an oligonucleotide with a terminal phosphate group at the 3' position. Applicants respectfully submit that claim 1 of the present invention recites an oligomeric compound without a phosphate group at the 3' position, wherein T₂ is hydroxyl, a protected hydroxyl, an oligonucleotide or an oligonucleoside. Thus, since Uhlmann et al. do not teach each and every element of the instant oligomeric compounds, the reference does not anticipate the rejected claims. Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. §102(b).

Applicants believe the foregoing constitutes a complete response to the Office Action and submit that all pending claims are in condition for allowance.

It is believed that no fee is due with this response. However, if a fee is due, the Examiner is hereby entitled to charge the fee to Deposit Account 50-0252, referencing the above named application.

Respectfully submitted,

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